WHAT IS CLAIMED IS:

1   1. A system for generating a representation of time-based media, the system

2 comprising:

3   a feature extraction module for extracting features from media content; and

4   a formatting module for formatting a media representation generated by the

5   system, the formatting module being communicatively coupled to the

6   feature extraction module to apply feature extraction information to the

7   representation, wherein the formatting module formats the representation

8   according to a representation specification.

1   2. The system of claim 1, wherein the feature extraction module further

2 comprises content recognition software for recognizing features in media content.

1   3. The system of claim 1, further comprising processing logic for controlling an

2 augmented output device driver interface.

1   4. The system of claim 1, further comprising processing logic for controlling an

2 augmented output device console.

1   5. The system of claim 1, wherein the media representation is generated in digital

2 format.

1   6. The system of claim 1, wherein the media representation is generated in paper

2   format.

1   7. The system of claim 1, wherein the media representation includes at least one

2   user-selectable identifier allowing a user to access media content.

1   8. The system of claim 7, wherein the at least one user-selectable identifier

2   comprises at least one barcode printed on the media representation.

1   9. The system of claim 7, wherein the at least one user-selectable identifier can

2   be selected to play associated media content.

1   10. The system of claim 8, wherein the at least one barcode can be selected on

2   the media representation by scanning the barcode to play the associated media content on

3   a display device.

1   11. The system of claim 1, wherein the media representation includes a graphical

2   representation of media content along a timeline.

1   12. The system of claim 11, wherein the graphical representation of audio content

2   is displayed in audio waveform timeline.

43

1   13. The system of claim 11, wherein the timeline includes markers along its

2   length that correspond to user-selected segments of media content.

1   14. The system of claim 11, wherein the timeline includes markers along its

2   length that correspond to segments of audio content, the segments being defined by a

3   search for particular features within the media content.

1   15. The system of claim 11, wherein the timeline includes markers along its

2   length that correspond to segments of media content, at least one of the markers having

3   text information describing the segment of media content.

1   16. The system of claim 11, wherein the timeline includes markers along its

2   length that correspond to segments of media content, at least one of the markers having

3   timestamp information describing the segment of media content.

1   17. The system of claim 1, wherein the media representation includes a header

2   describing the media content.

1   18. The system of claim 1, wherein the media representation is generated

2   according to format specifications included in a data structure.

44

1   19. The system of claim 18, wherein the format specifications included in the

2   data structure comprise a number of user-definable fields specifying the format of a

3   graphical representation printed on the media representation.

1   20. The system of claim 18, wherein the format specifications included in the

2   data structure comprise a number of user-definable fields specifying the layout of the

3   media representation.

1   21. The system of claim 18, wherein the format specifications included in the

2   data structure comprise a number of user-definable fields specifying the media content

3   markers included in the media representation.

1   22. The system of claim 20, wherein the format specifications included in the

2   data structure comprise a number of user-definable fields specifying the feature

3   extraction applied to the media content.

1   23. The system of claim 1, further comprising an augmented output device for

2   generating a media representation, the augmented output device being communicatively

3   coupled to the formatting module to receive instructions for generation of a media

4   representation.

1   24. The system of claim 23, wherein the augmented output device includes a

2   printer for printing media representations on paper.

45

1   25. A method for generating a representation of time-based media, the method

2   comprising:

3   extracting features from media content; and

4   formatting the representation according to a representation specification, the

5   formatting including applying feature extraction information.

1   26. The method of claim 25, further comprising generating a representation of

2   media content.

1   27. The method of claim 25, wherein extracting features of media content further

2   comprises performing keyword searching on the media data.

1   28. The method of claim 25, wherein extracting features of media content further

2   comprises performing speech recognition on the media data.

1   29. The method of claim 25, wherein extracting features of media content further

2   comprises performing event detection on the media data.

1   30. The method of claim 26, wherein generating a representation further

2   comprises generating a graphical representation of media content along a timeline.

1   31. The method of claim 30, wherein generating a graphical representation

2   further comprises generating an audio content waveform along a timeline.

46

1   32. The method of claim 26, wherein generating a representation further

2   comprises generating at least one user-selectable identifier in the media representation

3   that allows a user to access media content.

1   33. The method of claim 32, wherein generating at least one user-selectable

2   identifier comprises generating at least one barcode printed on the media representation.

1   34. The method of claim 33, further comprising selecting the at least one user-

2   selectable identifier on the media representation by scanning the barcode to play the

3   associated media content on a display device.

1   35. The method of claim 30, wherein generating a graphical representation along

2   a timeline further comprises generating markers along a timeline, the markers

3   corresponding to user-selected media content.

1   36. The method of claim 30, wherein generating a graphical representation along

2   a timeline further comprises generating markers along a timeline, at least one of the

3   markers corresponding to features extracted from the media content.

1   37. The method of claim 30, wherein generating a graphical representation along

2   a timeline further comprises generating markers along a timeline, at least one of the

3   markers including text information describing the media content.

47

1   38. The method of claim 30, wherein generating a graphical representation along

2   a timeline further comprises generating markers along a timeline, at least one of the

3   markers including timestamp information describing the media content.

1   39. The method of claim 26, wherein generating a representation further

2   comprises generating a header describing the media content

1   40. The method of claim 26, wherein generating a representation further

2   comprises generating a representation in digital format.

1   41. The method of claim 26, wherein generating a representation further

2   comprises printing a representation in paper format.

1   42. The method of claim 25, wherein formatting the representation according to a

2   representation specification further comprises defining the format of a media

3   representation using a data structure with format specifications.

1   43. The method of claim 25, further comprising inputting audio content and a

2   representation specification into the system.

1   44. The method of claim 33, wherein generating at least one barcode further

2   comprises applying a barcode generation algorithm to render a barcode image including

3   identifier information.

1   45. The method of claim 33, wherein generating at least one barcode further

2   comprises applying a barcode generation algorithm to render a barcode image including

3   timestamp information.